



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,238	09/30/2003	Keiji Ishibashi	001425-123	5389

21839 7590 09/12/2005

BUCHANAN INGERSOLL PC
(INCLUDING BURNS, DOANE, SWECKER & MATHIS)
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,238

Applicant(s)

ISHIBASHI ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-7 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,593,548 to Matsumara et al. in view of JP 2002-093713 to Taniguchi.

3. Claim 1 of the '548 patent discloses a heating element CVD system substantially as claimed and comprising: a processing container in which a predetermined processing is performed to a substrate held by a substrate holder disposed therein; an evacuation system which is connected to the processing container and evacuates the processing container to a vacuum; a raw material gas supply system for supplying a predetermined raw material gas into the processing container; and a heating element which is disposed in the processing container and is supplied with electric power from an electric supply mechanism, thereby being heated to high temperatures; wherein the raw material gas introduced into the processing container from the raw material gas supply system is decomposed and/or activated by the heating element kept at high temperatures to form a thin film on the substrate held by the substrate holder; wherein one or a plurality of connection terminal is placed in the processing container, each of the connection terminal holders holds a plurality of connection terminals at a predetermined position with electrical insulation therebetween; each of the connection terminals connects the heating element to the electric power supply mechanism electrically; the heating element connected to the connection terminals

Art Unit: 1763

is supported facing the substrate holder; and a connection region of the heating element connected to the connection terminal is not exposed to a space in the processing container.

4. However, the '548 patent fails to disclose the system further comprising a shield plate having a heating element passing hole through which the heating element passes in a noncontact manner and a plurality of through holes for passing gas is arranged between a part of the heating element extending into the processing container through the heating element passing hole and a surface of the connection terminal holder facing the inside of the processing container.

5. Taniguchi discloses a heating element CVD system comprising a shield plate (Figure 1, a plurality of plates, 22) having a heating element passing hole (23) through which the heating element passes in a noncontact manner and a plurality of through holes (between plates 22) for passing gas is arranged between a part of the heating element extending into the processing container through the heating element passing hole and a surface of the connection terminal holder facing the inside of the processing container for the purpose of controlling the heat influence of the heating element exerted on the substrate (abstract).

6. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a shield plate in the '548 patent in order to control the heat influence of the heating element exerted on the substrate as taught by Taniguchi.

Allowable Subject Matter

5. Claims 2-7 are allowed.

6. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach or fairly suggest a connection structure between a heating element and an electric power supply of a heating element CVD system as claimed and further comprising a connection pin and a connection terminal provided with a pin receiver having a small hole and a slit. Nor does the prior art of record fairly teach or suggest a connection structure between a heating element and an electric power supply of a heating element CVD system as claimed and further comprising an insulator arranged so as to cover a

Art Unit: 1763

part facing the first inside hollow portion of the connection part and the wiring part, or a surface of the connection terminal holder facing the first inside hollow portion is covered with an insulator.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP 5112466; 6069094; 6325857; 6432206; and 6593548 disclose heating element CVD systems—as do, JP Pubs 03-239320; 11-054441; 2000-114256; 2002-093713; and 2005-048273.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
6 September 2005